

15

The following tables I and II show the results obtained:
a) Results with the Aqueous Dispersion of Example 1:

TABLE I

Copolymerizate	Processability	Adhesion Standard (N/mm ²)	Adhesion Wet storage (N/mm ²)	Wet/standard (%)
PVOH-stabilized MMA/BA	very good	1.22	0.31	25.4
Example 1	very good	1.26	1.13	89.7

This (co)polymerizate according to the invention prepared with in situ polymer with cationic functionality offers improved adhesion following wet storage.

b) Results for the Pulverulent Copolymerizate According to Example 6.

TABLE II

Copolymerizate	Processability	Adhesion Standard (N/mm ²)	Adhesion Wet storage (N/mm ²)	Wet/standard (%)
PVOH-stabilized St/BA	very good	1.63	0.62	38.3
Powder of dispersion of Ex. 6 (Example 8)	very good	1.10	0.80	72.7

Here again the (co)polymerizate according to the invention has an improved adhesion after wet storage.

Thus, the inventively modified mortars have an excellent adhesive strength on mineral substrates, particularly after wet storage. In addition, the thus modified adhesive mortars in the ready-to-use state have a very good processability, as is required by the processor.

What is claimed is:

1. A redispersible powder comprising a copolymer obtained by drying a stable aqueous dispersion, said aqueous dispersion comprising a copolymer having one or more reactive functional groups, said copolymer being polymerized from at least one cationic unsaturated monomer and at least one non-cationic unsaturated monomer, characterized in that the copolymer powder is redispersible in water.

2. The redispersible powder of claim 1, wherein said copolymer is polymerized in situ in the presence of a seed polymer.

3. The redispersible powder of claim 1 wherein the copolymer powder comprises particles having a heterogeneous morphology.

4. The redispersible powder of claim 3 wherein said particles have an average diameter of from 30 to 1000 nm.

5. The redispersible powder of claim 3 having a core-shell morphology comprising a hydrophilic inner phase and a hydrophobic outer phase.

16

6. The redispersible powder of claim 1 wherein said reactive functional groups are selected from the group consisting of hydroxyl, carboxyl, carboxyl ester, amino, ammonium, amide, silane, epoxide, carbonyl, formamide, acetamide, succinimide, epihalohydrin, and mixtures thereof.

7. The redispersible powder of claim 1 wherein said cationic functional monomer copolymer comprises 1 to 30 percent by weight of said copolymer.

8. The redispersible powder of claim 1 wherein said copolymer is formed from 10 to 100 percent by weight of monomers containing a reactive functional group.

9. The redispersible powder of claim 1 wherein said cationic-monomer comprises a quaternary ammonium group.

10. The redispersible powder of claim 1 wherein said reactive functional groups are activated following a redispersion by a change in the pH of the redispersion.

11. The redispersible powder of claim 1 wherein said reactive functional group comprises at least one protonated group which is deprotonated by raising the pH-value of the redispersion.

12. The redispersible powder of claim 1 wherein said non-cationic monomer comprises an anionic monomer.

13. The redispersible powder of claim 1 wherein said aqueous dispersion comprises less than 2.5% by weight of emulsifier.

14. The redispersible powder of claim 13 wherein said aqueous dispersion is free of emulsifier.

15. The redispersible powder of claim 1 wherein said drying is by spray or freeze drying.

16. The redispersible powder of claim 1 further comprising a redispersible powder of a second (co)polymer.

17. The redispersible powder of claim 16 wherein said second (co)polymer comprises monomers selected from vinyl acetate, ethylene, vinyl versatate, acrylate, methacrylate, styrene, butadiene and mixtures thereof.

18. An Aqueous dispersion comprising the redispersible powder of claim 1.

19. A process for preparing a redispersible powder comprising:

- a) forming a (co)polymer having one or more reactive functional groups in an aqueous medium, said copolymer being polymerized from at least one cationic unsaturated monomer and at least one non-cationic unsaturated monomer to form an aqueous dispersion; and
- b) drying the aqueous dispersion.

* * * * *